Maine Alum Corporation	**)**	**DEPARTMENTAL**
Aroostook County	**)**	**FINDINGS OF FACT AND ORDER**
Grand Isle, Maine	**)**	**AIR EMISSION LICENSE**
A-739-71-B-R	**)**	

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Maine Alum Corporation of Grand Isle, Maine, has applied to renew their air emission license, permitting the operation of emission sources associated with their liquid aluminum sulfate manufacturing facility.

B. Emission Equipment

Equipment	Pollution Control Equipment	Stack #
Sulfuric acid tank	None	Ambient vent
Sulfuric acid tank	None	Ambient vent
Water tank	None	Ambient vent
Aluminum sulfate tank	None	Ambient vent
Digestor	Scrubber	Scrubber stack

* Maine Alum Corp. also operates silent glow oil furnaces for space heating which are less than 1.0 MMBtu/hr. These units vent within the building and are considered for inventory purposes only.

C. Application Classification

The application for Maine Alum does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a renewal of current licensed emission units only.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent best practical treatment (BPT), as defined in Chapter 100 of the Air Regulations.

B. Process Emission Sources

Aluminum sulfate (known as alum) is a heavy, non-volatile, colorless liquid used by the paper industry and waste water treatment plants as a coagulant or for pH adjustment.

The alum manufacturing process is a batch operation. Water is added to the digestor tank, then sulfuric acid is added to the water. This produces a large quantity of heat and some steam with possible acid mist. Next, aluminum trihydrate filter cake is added to the water/acid mixture. This also produces a large quantity of heat and some steam/acid mist. The acid "digests" the aluminum, forming aluminum sulfate. Water is then added to the mixture to adjust the density. The alum is then filtered and stored. Any unreacted hydrate is trapped on the filter, added to the wash tank where it is diluted with water and pumped back to the digestor for use in the next batch. Maine Alum states this process results in no by-product or sludge production.

In the production of alum, the primary source of emissions is from the digestor in the form of particulate matter and acid mist vapor. To control these emissions to a level that would meet the requirements of BPT, Maine Alum has equipped the digestor with a wet scrubber. This unit is a 10 foot high, 48 inch diameter fiberglass scrubbing unit packed with two inch diameter tellerettes. A constant water flow rate of 70 gpm is distributed from the top of the tower, flowing over the packing to absorb any acid mist vapors produced from the process in the digestor. Uncontrolled emissions from this process are estimated to be 1 TPY for particulate matter and acid vapors (per Texas Air Board). With the operation of the wet scrubber, emissions will be unquantifiable, and far less than 1 TPY.

No significant emissions are expected from the acid and alum storage tank vents.

III. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a minor new source shall be determined on a case-by-case basis. Based on this fact, information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source and modeling and monitoring are not required.

Maine Alum Corporation	**)**	**DEPARTMENTAL**
Aroostook County	**)**	**FINDINGS OF FACT AND ORDER**
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ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-739-71-B-R, subject to the following conditions:

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions.

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115.

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both.

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request.

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 MRSA §353.

(6) The license does not convey any property rights of any sort, or any exclusive privilege.

(7) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions.

(8) The licensee shall maintain sufficient records, to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a license or amendment shall not stay any condition of the license.

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
b. pursuant to any other requirement of this license to perform stack testing.

(ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(iii) submit a written report to the Department within thirty (30) days from date of test completion.

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

(iii) the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

(13) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement.

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation.

(15) Upon written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

(16) The visible emissions from the scrubber stack shall not exceed an opacity of 10% based on a six (6) minute average.

(17) The wet scrubber shall begin operation prior to the addition of acid to the digestor and shall operate until fresh water is added to the batch to correct for density. Records shall be kept documenting operation of the scrubber.

(18) The aluminum trihydrate filter cake used in the process shall be stored and conveyed inside the building only.

(19) Maine Alum shall pay the annual air emission license fee within 30 days of **July 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

(20) The term of this order shall be for five (5) years from the signature date below.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2003.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 3, 2003
Date of application acceptance: July 21, 2003

Date filed with Board of Environmental Protection: _____

This order prepared by Mark E. Roberts, Bureau of Air Quality